



TORQ Analysis of Inspectors, Testers, Sorters, Samplers, and Weighers to Team Assemblers

INPUT SECTION:

Transfer	Title	O*NET	Filters		
From Title:	Inspectors, Testers, Sorters, Samplers, and Weighers	51-9061.00	Abilities:	Importance Level: 50	Weight: 1
To Title:	Team Assemblers	51-2092.00	Skills:	Importance Level: 69	Weight: 1
Labor Market Area:	Maine Statewide		Knowledge:	Importance Level: 69	Weight: 1

OUTPUT SECTION:

Grand TORQ:

85

Ability TORQ				Skills TORQ				Knowledge TORQ			
Level			84	Level			84	Level			88
Gaps To Narrow if Possible				Upgrade These Skills				Knowledge to Add			
Ability	Level	Gap	Impt	Skill	Level	Gap	Impt	Knowledge	Level	Gap	Impt
Control Precision	44	9	53	No Skills Upgrade Required!				No Knowledge Upgrades Required!			
Speech Recognition	41	6	50								
Manual Dexterity	41	4	62								
Speech Clarity	41	4	50								
Arm-Hand Steadiness	39	2	56								
Finger Dexterity	42	1	56								

LEVEL and IMPT (IMPORTANCE) refer to the Target Team Assemblers. GAP refers to level difference between Inspectors, Testers, Sorters, Samplers, and Weighers and Team Assemblers.

ASK ANALYSIS

Ability Level Comparison - Abilities with importance scores over 50

Description	Inspectors, Testers, Sorters, Samplers, and Weighers	Team Assemblers	Importance
Oral Comprehension	53	51	62
Manual Dexterity	37	41	62
Oral Expression	51	48	59
Information Ordering	42	42	56
Arm-Hand Steadiness	37	39	56
Finger Dexterity	41	42	56



Near Vision	50	<div><div></div></div>	44	<div><div></div></div>	56	<div><div></div></div>
Problem Sensitivity	41	<div><div></div></div>	41	<div><div></div></div>	53	<div><div></div></div>
Control Precision	35	<div><div></div></div>	44	<div><div></div></div>	53	<div><div></div></div>
Written Expression	42	<div><div></div></div>	37	<div><div></div></div>	50	<div><div></div></div>
Deductive Reasoning	44	<div><div></div></div>	41	<div><div></div></div>	50	<div><div></div></div>
Speech Recognition	35	<div><div></div></div>	41	<div><div></div></div>	50	<div><div></div></div>
Speech Clarity	37	<div><div></div></div>	41	<div><div></div></div>	50	<div><div></div></div>
Skill Level Comparison - Abilities with importance scores over 69						
Description	Inspectors, Testers, Sorters, Samplers, and Weighers	Team Assemblers		Importance		
Knowledge Level Comparison - Knowledge with importance scores over 69						
Description	Inspectors, Testers, Sorters, Samplers, and Weighers	Team Assemblers		Importance		

Experience & Education Comparison						
Related Work Experience Comparison				Required Education Level Comparison		
Description	Inspectors, Testers, Sorters, Samplers, and Weighers		Team Assemblers	Description	Inspectors, Testers, Sorters, Samplers, and Weighers	Team Assemblers
10+ years	3%	<div></div>	0%	Doctoral	0%	0%
8-10 years	0%	<div></div>	0%	Professional Degree	0%	0%
6-8 years	0%	<div></div>	0%	Post-Masters Cert	0%	0%
4-6 years	12%	<div></div>	0%	Master's Degree	0%	0%
2-4 years	1%	<div></div>	4%	Post-Bachelor Cert	0%	0%
1-2 years	14%	<div></div>	6%	Bachelors	0%	0%
6-12 months	23%	<div></div>	10%	AA or Equiv	3%	0%
3-6 months	3%	<div></div>	2%	Some College	5%	1%
1-3 months	6%	<div></div>	6%	Post-Secondary Certificate	22%	11%
0-1 month	10%	<div></div>	17%	High School Diploma or GED	61%	63%
None	24%	<div></div>	50%	No HSD or GED	7%	22%
Inspectors, Testers, Sorters, Samplers, and Weighers				Team Assemblers		
Most Common Educational/Training Requirement:						
Moderate-term on-the-job training				Moderate-term on-the-job training		
Job Zone Comparison						
2 - Job Zone Two: Some Preparation Needed				2 - Job Zone Two: Some Preparation Needed		
Some previous work-related skill, knowledge, or experience may be helpful in these occupations, but usually is not needed. For example, a teller might benefit from experience working directly with the public, but an inexperienced person could still learn to be a teller with little difficulty.				Some previous work-related skill, knowledge, or experience may be helpful in these occupations, but usually is not needed. For example, a teller might benefit from experience working directly with the public, but an inexperienced person could still learn to be a teller with little difficulty.		
These occupations usually require a high school diploma and may require some vocational training or job-related course work. In some cases, an associate's or bachelor's degree could be needed.				These occupations usually require a high school diploma and may require some vocational training or job-related course work. In some cases, an associate's or bachelor's degree could be needed.		



Employees in these occupations need anywhere from a few months to one year of working with experienced employees.

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Tasks

Inspectors, Testers, Sorters, Samplers, and Weighers

Core Tasks

Generalized Work Activities:

- Documenting/Recording Information - Entering, transcribing, recording, storing, or maintaining information in written or electronic/magnetic form.
- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.
- Monitor Processes, Materials, or Surroundings - Monitoring and reviewing information from materials, events, or the environment, to detect or assess problems.
- Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.
- Communicating with Supervisors, Peers, or Subordinates - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.

Specific Tasks

Occupation Specific Tasks:

- Adjust, clean, or repair products or processing equipment to correct defects found during inspections.
- Administer tests to engineers and operators to assess whether they are qualified to use equipment.
- Analyze and interpret blueprints, data, manuals, and other materials to determine specifications, inspection and testing procedures, adjustment and certification methods, formulas, and measuring instruments required.
- Analyze test data and make computations as necessary to determine test results.
- Check arriving materials to ensure that they match purchase orders and submit discrepancy reports when problems are found.
- Clean, maintain, repair, and calibrate measuring instruments and test equipment such as dial indicators, fixed gauges, and height gauges.
- Collect or select samples for testing or for use as models.
- Compare colors, shapes, textures, or grades of products or materials with color charts, templates, or samples to verify conformance to standards.

Team Assemblers

Core Tasks

Generalized Work Activities:

- Handling and Moving Objects - Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things.
- Controlling Machines and Processes - Using either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles).
- Communicating with Supervisors, Peers, or Subordinates - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.
- Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.
- Identifying Objects, Actions, and Events - Identifying information by categorizing, estimating, recognizing differences or similarities, and detecting changes in circumstances or events.

Specific Tasks

Occupation Specific Tasks:

- Determine work assignments and procedures.
- Operate heavy equipment such as forklifts.
- Provide assistance in the production of wiring assemblies.
- Rotate through all the tasks required in a particular production process.
- Shovel and sweep work areas.

Detailed Tasks

Detailed Work Activities:

- confer with engineering, technical or manufacturing personnel
- direct and coordinate activities of workers or staff
- examine products or work to verify conformance to specifications
- fabricate, assemble, or disassemble manufactured products by hand
- perform safety inspections in manufacturing or industrial setting
- read work order, instructions, formulas, or processing charts



- Compute defect percentages or averages, using formulas and calculators, and prepare reports of inspection or test findings.
- Compute usable amounts of items in shipments and determine prices, based on quantities and grade assessments.
- Disassemble defective parts and components, such as inaccurate or worn gauges and measuring instruments, using hand tools.
- Discard or reject products, materials, and equipment not meeting specifications.
- Discuss inspection results with those responsible for products, and recommend necessary corrective actions.
- Fabricate, install, position, or connect components, parts, finished products, or instruments for testing or operational purposes.
- Grade, classify, and sort products according to sizes, weights, colors, or other specifications.
- Inspect, test, or measure materials, products, installations, and work for conformance to specifications.
- Interpret legal requirements, provide safety information, and recommend compliance procedures to contractors, craft workers, engineers, and property owners.
- Make minor adjustments to equipment, such as turning setscrews to calibrate instruments to required tolerances.
- Mark items with details such as grade and acceptance or rejection status.
- Measure dimensions of products to verify conformance to specifications, using measuring instruments such as rulers, calipers, gauges, or micrometers.
- Notify supervisors and other personnel of production problems, and assist in identifying and correcting these problems.
- Observe and monitor production operations and equipment to ensure conformance to specifications and make or order necessary process or assembly adjustments.
- Position products, components, or parts for testing, or direct other workers to position them.
- Read dials and meters to verify that equipment is functioning at specified levels.
- Record inspection or test data, such as weights, temperatures, grades, or moisture content, and quantities inspected or graded.
- Remove defects, such as chips and burrs, and lap corroded or pitted surfaces.
- Set controls, start and monitor machines that automatically measure, sort, or

- use computers to enter, access or retrieve data
- use hand or power tools
- work as a team member

Technology - Examples

Computer aided design CAD software

- Computer aided design CAD software

Data base user interface and query software

- Data entry software

Office suite software

- Microsoft Office

Spreadsheet software

- Microsoft Excel

- Spreadsheet software

Word processing software

- Microsoft Word

- Word processing software

Tools - Examples

- Adjustable wrenches

- Bearing installation tools

- Bench vises

- Welding torches

- Dial calipers

- Metal chisels

- Dividers

- Burring tools

- Desktop computers

- Protective ear muffs

- Protective ear plugs

- Engine repair stands

- Fiber reinforced polymer FRP rollers

- Feeler gauges

- Hand files

- Torque angle meters

- Forklifts



inspect products.

- Stack and arrange tested products for further processing, shipping, or packaging and transport products to other work stations as necessary.
- Supervise testing or drilling activities.
- Weigh materials, products, containers, or samples to verify packaging weights and ingredient quantities, or to determine sorting.
- Write test and inspection reports describing results, recommendations, and needed repairs.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- attach or mark identification onto products or containers
- collect samples for testing
- communicate technical information
- compare findings with specifications to ensure conformance to standards
- compute product or materials test results
- conduct performance testing
- confer with vendors
- determine specifications
- determine specifications or testing procedures
- direct and coordinate activities of workers or staff
- distinguish colors
- evaluate material specifications
- examine products or work to verify conformance to specifications
- fabricate, assemble, or disassemble manufactured products by hand
- follow manufacturing methods or techniques
- follow statistical process control procedures
- grade, classify, or sort products according to specifications
- inspect manufactured products or materials
- install/connect electrical equipment to power circuit
- load, unload, or stack containers, materials, or products
- maintain consistent production quality
- maintain inspection tools or equipment
- maintain records, reports, or files
- maintain safe work environment
- mark items for acceptance or rejection, according to conformance to specifications
- measure, weigh, or count products or materials

• Arc welding equipment

• Dial indicators

• Vacuum bags

• Grinding machines

• Material guiding jigs

• Claw hammers

• Hand clamps

• Heat guns

• Pin protrusion gauges

• Allen wrenches

• Power hoists

• Ring squeezers

• Hydraulic press frames

• Power wrenches

• Heating furnaces

• Threaded insert tools

• Hand jacks

• Heat lamps

• Ladders

• Lathes

• Transits

• Locking pliers

• End milling machines

• Plastic mallets

• Metal inert gas MIG welders

• Electrochemical etching devices

• Micrometers

• Computerized numerical control CNC metal-cutting machines

• Milling machines

• Needlenose pliers

• Nut drivers

• Paint application brushes



- modify electrical or electronic equipment or products
- monitor production machinery/equipment operation to detect problems
- monitor repairs or maintenance to enforce standards
- move materials or goods between work areas
- operate industrial or nondestructive testing equipment
- operate packaging or banding machine or equipment
- operate pneumatic test equipment
- operate precision test equipment
- package goods for shipment or storage
- perform safety inspections in industrial, manufacturing or repair setting
- prepare reports
- prepare safety reports
- prepare technical reports or related documentation
- read blueprints
- read production layouts
- read specifications
- read technical drawings
- read work order, instructions, formulas, or processing charts
- recognize characteristics of alloys
- recognize characteristics of metals
- recognize characteristics of pulps
- recognize wood species characteristics
- record test results, test procedures, or inspection data
- sort manufacturing materials or products
- test manufactured products or materials
- understand engineering data or reports
- understand measuring devices
- understand technical operating, service or repair manuals
- use computers to enter, access or retrieve data
- use electrical or electronic test devices or equipment
- use hand or power tools
- use hazardous materials information
- use interpersonal communication techniques
- use knowledge of investigation techniques
- use knowledge of metric system
- use long or short term production planning techniques
- use oral or written communication techniques
- use precision measuring tools or equipment

- Paint application rollers
- High-volume low-pressure HVLP spray guns
- Curing ovens
- Assembly robots
- Rotating mandrels
- Tube cutters
- Flame cutters
- Pneumatic drills
- First assembly jigs
- Power chippers
- Cordless drills
- Bench grinders
- Edge planers
- Belt sanders
- Cutoff saws
- Power drivers
- Anti-vibration gloves
- Protractors
- Pry bars
- Gear pullers
- Center punches
- Ratchets
- Line reamers
- Chopper guns
- Respirators
- Snap ring pliers
- Alligator jaw compression riveters
- Steel rules
- Safety glasses
- Scaffolding
- Straight screwdrivers
- Scribes



- use quality assurance techniques
- use research methodology procedures within manufacturing or commerce
- use spreadsheet software
- use technical information in manufacturing or industrial activities
- use x-ray or magnetic inspection techniques

Technology - Examples

Analytical or scientific software

- Data analysis software
- Design of experiments DOE software
- Minitab software
- Tolerance analysis software

Computer aided manufacturing CAM software

- Computer-aided inspection software

Industrial control software

- Coordinate measuring machine software
- CyberMetrics GAGETrak Calibration Management Software
- Statistical process control SPC data collection devices
- Wilcox Associates PC-DMIS Inspection Planner

Label making software

- Inspection marking systems

Optical character reader OCR or scanning software

- Label inspection systems

Spreadsheet software

- Microsoft Excel

Word processing software

- Microsoft Word

Tools - Examples

- Accelerometers
- Ammeters
- Industrial bench scales
- Beta gauges
- Measuring microscopes
- Digital resistance meters
- Calipers

- Adhesive application robots

- Beverly shears

- Socket wrenches

- Soldering guns

- Spanner wrenches

- Case wrenches

- Timing lights

- Layout squares

- Squeegees

- Bearing staking tools

- Measuring tapes

- Taps

- Drafting templates

- Tensiometers

- Fuel control wrenches

- Beading tools

- Crimping tools

- Lapping tools

- Tungsten inert gas TIG welding equipment

- Turnbuckles

- Radial drills

- Ultrasonic inspection equipment

- Trimming knives

- Vacuum pumps

- Wedges

- Tack welding equipment

- Welding hoods

- Welding robots

- Spot welding equipment

- Cable cutters

- Jib cranes

- Brakes



- Continuity testers
- Optical comparators
- Compression testers
- Conductivity meters
- Coordinate measuring machines CMM
- Creep and stress relaxation testers
- Depth gauges
- Ductility testers
- Eddy current flaw detectors
- Frequency meters
- Fatigue testers
- Force transducers
- Forklifts
- Frequency counters
- Functional gauges
- Hardness testers
- Height gauges
- Hipot testers
- Hydraulic pumps
- Impact hammers
- Impact toughness testers
- Return loss calibrator RLC passive component testers
- Backplane testers
- Holographic interferometers
- Laser shearography flaw detectors
- Bubble leak testers
- Pulse generators
- Hydraulic lifts
- Penetrant flaw detectors
- Magnetic particle flaw detectors
- Metallurgical microscopes
- Micrometers



- Moisture meters
- Digital multimeters
- Bit error rate BER testers
- Sampling oscilloscopes
- Personal computers
- Plotters
- Direct current DC power testers
- Gloss meters
- Environmental chambers
- Digital thermometers
- Pi tapes
- Shear testers
- Shock testers
- Linear or mixed signal equipment
- Function generators
- Sorting machines
- Color spectrometers
- Strain gauges
- Tensile testers
- Laser thickness gauges
- Thread gauges
- Overhead cranes
- Ultrasonic flaw detectors
- Vibration and shaker systems
- Viscometers
- Digital voltmeters DVM
- Radiographic flaw detectors

Labor Market Comparison

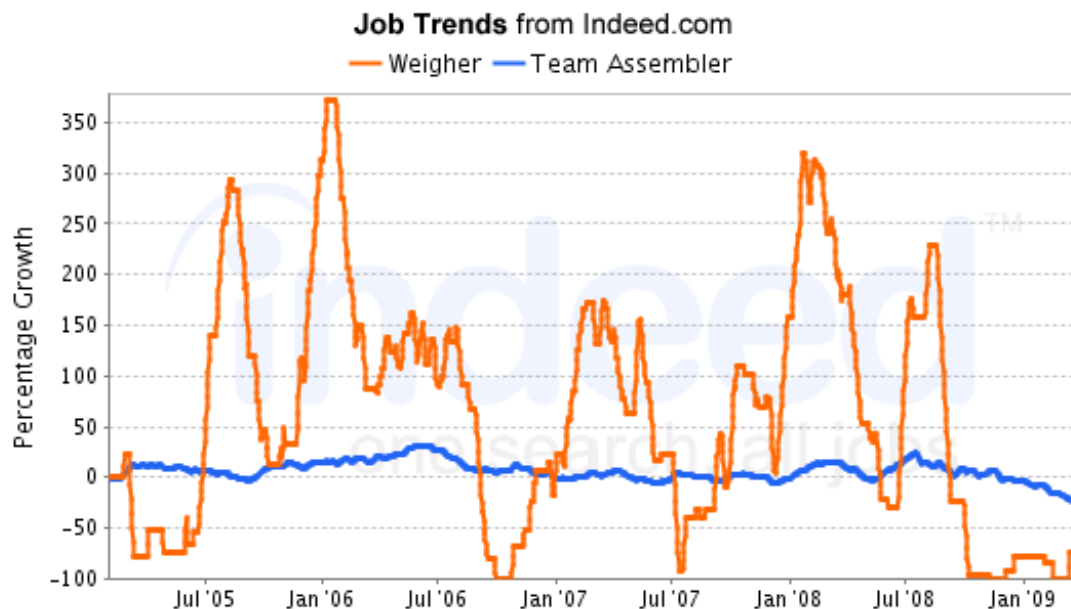
Description	Inspectors, Testers, Sorters, Samplers, and Weighers	Team Assemblers	Difference
Median Wage	\$ 29,700	\$ 23,730	\$ (5,970)



10th Percentile Wage	\$ 19,620	\$ 18,550	\$(1,070)
25th Percentile Wage	N/A	N/A	N/A
75th Percentile Wage	\$ 40,300	\$ 28,380	\$(11,920)
90th Percentile Wage	\$ 48,960	\$ 32,810	\$(16,150)
Mean Wage	\$ 31,870	\$ 25,040	\$(6,830)
Total Employment - 2007	1,700	3,850	2,150
Employment Base - 2006	1,720	3,958	2,238
Projected Employment - 2016	1,473	3,691	2,218
Projected Job Growth - 2006-2016	-14.4 %	-6.7 %	7.6 %
Projected Annual Openings - 2006-2016	26	82	56

National Job Posting Trends

Trend for Inspectors, Testers, Sorters, Samplers, and Weighers

Trend for
Team
AssemblersData from [Indeed](http://Indeed.com)

Recommended Programs

Window Treatment Maker and Installer

Electromechanical Technology/Electromechanical Engineering Technology. A program that prepares individuals to apply basic engineering principles and technical skills in support of engineers engaged in developing and testing automated, servomechanical, and other electromechanical systems. Includes instruction in prototype testing, manufacturing and operational testing, systems analysis and maintenance procedures, and report preparation.

Institution	Address	City	URL
Central Maine Community College	1250 Turner St	Auburn	www.cmcc.edu



Central Maine Community College	1250 Turner St	Auburn	www.cmcc.edu
Shoe, Boot and Leather Repairer			
Machine Shop Technology/Assistant. A program that prepares individuals to apply technical knowledge and skills to fabricate and modify metal parts in support of other manufacturing, repair or design activities, or as an independent business.			
No schools available for the program			
Sheet Metal Worker			
Sheet Metal Technology/Sheetworking. A program that prepares individuals to apply technical knowledge and skills to form, shape, bend and fold extruded metals, including the creation of new products, using hand tools and machines such as cornice brakes, forming rolls, and squaring shears.			
Institution	Address	City	URL
Northern Maine Community College	33 Edgemont Dr	Presque Isle	www.nmcc.edu

Maine Statewide Promotion Opportunities for Inspectors, Testers, Sorters, Samplers, and Weighers

O*NET Code	Title	Grand TORQ	Job Zone	Employment	Median Wage	Difference	Growth	Annual Job Openings
51-9061.00	Inspectors, Testers, Sorters, Samplers, and Weighers	100	2	1,700	\$29,700.00	\$0.00	-14%	26
51-4121.07	Solderers and Brazers	87	2	1,610	\$38,030.00	\$8,330.00	7%	49
51-9196.00	Paper Goods Machine Setters, Operators, and Tenders	85	2	910	\$38,230.00	\$8,530.00	-26%	23
43-5053.00	Postal Service Mail Sorters, Processors, and Processing Machine Operators	84	2	970	\$41,950.00	\$12,250.00	-12%	10
51-2021.00	Coil Winders, Tapers, and Finishers	82	2	90	\$31,910.00	\$2,210.00	-53%	1
19-4011.02	Food Science Technicians	82	3	20	\$32,000.00	\$2,300.00	-3%	1
43-9031.00	Desktop Publishers	82	3	130	\$32,200.00	\$2,500.00	14%	5
51-9032.00	Cutting and Slicing Machine Setters, Operators, and Tenders	80	2	710	\$31,350.00	\$1,650.00	-23%	12
51-5023.00	Printing Machine Operators	79	2	790	\$29,710.00	\$10.00	-3%	18



43-5061.00	Production, Planning, and Expediting Clerks	79	2	1,320	\$38,490.00	\$8,790.00	-1%	35
51-5021.00	Job Printers	79	3	140	\$31,890.00	\$2,190.00	-10%	2
51-9051.00	Furnace, Kiln, Oven, Drier, and Kettle Operators and Tenders	79	2	300	\$32,980.00	\$3,280.00	-18%	9
19-4031.00	Chemical Technicians	78	3	160	\$34,890.00	\$5,190.00	-7%	6
51-4032.00	Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic	78	2	100	\$33,030.00	\$3,330.00	-22%	2
43-5041.00	Meter Readers, Utilities	78	1	90	\$31,240.00	\$1,540.00	-11%	3

Top Industries for Team Assemblers

Industry	NAICS	% in Industry	Employment	Projected Employment	% Change
Employment services	561300	15.68%	199,847	252,932	26.56%
Motor vehicle parts manufacturing	336300	7.79%	99,321	80,278	-19.17%
Motor vehicle manufacturing	336100	4.50%	57,395	57,191	-0.35%
Other wood product manufacturing	321900	3.65%	46,477	43,797	-5.77%
Motor vehicle body and trailer manufacturing	336200	3.47%	44,237	44,350	0.25%
Plastics product manufacturing	326100	3.40%	43,379	45,983	6.00%
Architectural and structural metals manufacturing	332300	2.80%	35,620	38,043	6.80%
Medical equipment and supplies manufacturing	339100	2.66%	33,860	34,635	2.29%
Other fabricated metal product manufacturing	332900	2.47%	31,442	27,859	-11.39%
Ventilation, heating, air-conditioning, and commercial refrigeration equipment manufacturing	333400	2.41%	30,715	28,255	-8.01%
Other general purpose machinery manufacturing	333900	2.36%	30,035	27,113	-9.73%
Navigational, measuring, electromedical, and control instruments manufacturing	334500	1.84%	23,417	22,419	-4.26%
Agriculture, construction, and mining machinery manufacturing	333100	1.79%	22,809	21,297	-6.63%
Household appliance manufacturing	335200	1.65%	21,088	15,957	-24.33%
Semiconductor and other electronic component manufacturing	334400	1.65%	21,011	18,365	-12.59%

Top Industries for Inspectors, Testers, Sorters, Samplers, and Weighers



Industry	NAICS	% in Industry	Employment	Projected Employment	% Change
Employment services	561300	7.50%	36,864	43,994	19.34%
Motor vehicle parts manufacturing	336300	4.66%	22,903	17,193	-24.93%
Plastics product manufacturing	326100	4.23%	20,797	20,787	-0.05%
Semiconductor and other electronic component manufacturing	334400	3.70%	18,159	14,967	-17.58%
Aerospace product and parts manufacturing	336400	3.32%	16,315	15,667	-3.97%
Navigational, measuring, electromedical, and control instruments manufacturing	334500	2.17%	10,680	9,641	-9.72%
Medical equipment and supplies manufacturing	339100	1.87%	9,177	8,852	-3.55%
Pharmaceutical and medicine manufacturing	325400	1.80%	8,824	10,486	18.84%
Animal slaughtering and processing	311600	1.79%	8,815	9,486	7.62%
Other fabricated metal product manufacturing	332900	1.78%	8,731	7,295	-16.45%
Rubber product manufacturing	326200	1.70%	8,331	5,547	-33.41%
Testing laboratories	541380	1.48%	7,249	8,416	16.10%
Self-employed workers, primary job	000601	1.48%	7,279	7,313	0.46%
Foundries	331500	1.45%	7,125	4,872	-31.63%
Printing and related support activities	323100	1.40%	6,856	5,122	-25.29%